

99905

Shears, Beverly

From: Devi, Sarvamangala
Sent: Monday, July 28, 2003 3:00 PM
To: Shears, Beverly
Subject: 10/060,521

Beverly:

Would you please perform a sequence and an interference search for a polypeptide comprising an amino acid sequence having at least 75% identity to SEQ ID NO: 2 in application 10/060,521?

Thanks.

S. DEVI, Ph.D.
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CM1-7E15
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CC further identifying MDR efflux pumps that may be used as drug targets to
 CC increase the sensitivity of cells to antibiotic agents. Cells
 CC comprising the identified pumps may be used to screen for potential
 CC blockers or inhibitors of MDR pump function or gene expression.

XX	SQ	Sequence	498 AA;	Query Match	99.3†;	Score 2522;	DB 122;	Length 498;
XX	XX	XX	XX	Best Local Matches	99.2‡;	Pred. No. 5.5e-189;	XX	XX
XX	XX	XX	XX	Matches	494;	Conservative	2;	Mismatches 2;
Qy	1	MSKIELKQLSPAYDNQEYLLDQANITMDTNKLGIGRNFRGKTTLRLQQLQYQGE 60		1	MSKIELKQLSPAYDNQEYLLDQANITMDTNKLGIGRNFRGKTTLRLQQLQYQGE 60			
Db	1	MSKIELKQLSPAYDNQEYLLDQANITMDTNKLGIGRNFRGKTTLRLQQLQYQGE 60		1	MSKIELKQLSPAYDNQEYLLDQANITMDTNKLGIGRNFRGKTTLRLQQLQYQGE 60			
Qy	61	ILHODFYYFPQTVAEEQOLTYVVLQEVTSFFQWELERELTLLNVPBVLWRPFSSLSGG 120		61	ILHODFYYFPQTVAEEQOLTYVVLQEVTSFFQWELERELTLLNVPBVLWRPFSSLSGG 120			
Db	61	ILHODFYYFPQTVAEEQOLTYVVLQEVTSFFQWELERELTLLNVPBVLWRPFSSLSGG 120		61	ILHODFYYFPQTVAEEQOLTYVVLQEVTSFFQWELERELTLLNVPBVLWRPFSSLSGG 120			
Qy	121	EKTKVLLGILFTEENAFPLIDEPTNHLDLAGRQVARYLKCKKCHGFTLVSHDRAFTDEVV 180		121	EKTKVLLGILFTEENAFPLIDEPTNHLDLAGRQVARYLKCKKCHGFTLVSHDRAFTDEVV 180			
Db	121	EKTKVLLGILFTEENAFPLIDEPTNHLDLAGRQVARYLKCKKCHGFTLVSHDRAFTDEVV 180		121	EKTKVLLGILFTEENAFPLIDEPTNHLDLAGRQVARYLKCKKCHGFTLVSHDRAFTDEVV 180			
Qy	181	DHILAIEKSLQTLYQGNFSIYEHQKQURDAFELAENEKIGKEVNRLKETARKKAEVSMNR 240		181	DHILAIEKSLQTLYQGNFSIYEHQKQURDAFELAENEKIGKEVNRLKETARKKAEVSMNR 240			
Db	181	DHILAIEKSLQTLYQGNFSIYEHQKQURDAFELAENEKIGKEVNRLKETARKKAEVSMNR 240		181	DHILAIEKSLQTLYQGNFSIYEHQKQURDAFELAENEKIGKEVNRLKETARKKAEVSMNR 240			
Qy	241	EGDKYGNAREKKGSGAIFDTGAICARAARVMRSKSHICQRAETQLAKEBKLLKDLEYTDPL 300		241	EGDKYGNAREKKGSGAIFDTGAICARAARVMRSKSHICQRAETQLAKEBKLLKDLEYTDPL 300			
Db	241	EGDKYGNAREKKGSGAIFDTGAICARAARVMRSKSHICQRAETQLAKEBKLLKDLEYTDPL 300		241	EGDKYGNAREKKGSGAIFDTGAICARAARVMRSKSHICQRAETQLAKEBKLLKDLEYTDPL 300			
Qy	301	SMDYQPTHHKTLTIVTEELRLGKYEKNWLFAPLSFSINAGBIVGITGNGSGKSSLQYLLD 360		301	SMDYQPTHHKTLTIVTEELRLGKYEKNWLFAPLSFSINAGBIVGITGNGSGKSSLQYLLD 360			
Db	301	SMDYQPTHHKTLTIVTEELRLGKYEKNWLFAPLSFSINAGBIVGITGNGSGKSSLQYLLD 360		301	SMDYQPTHHKTLTIVTEELRLGKYEKNWLFAPLSFSINAGBIVGITGNGSGKSSLQYLLD 360			
Qy	361	NFGDSEGAETLAHQLTISYVRODYEDNQGTLSSEPAEKQDLYTFLNLRLGMRAVP 420		361	NFGDSEGAETLAHQLTISYVRODYEDNQGTLSSEPAEKQDLYTFLNLRLGMRAVP 420			
Db	361	NFGDSEGAETLAHQLTISYVRODYEDNQGTLSSEPAEKQDLYTFLNLRLGMRAVP 420		361	NFGDSEGAETLAHQLTISYVRODYEDNQGTLSSEPAEKQDLYTFLNLRLGMRAVP 420			
Qy	421	TNRIEQMSMGQRKKEVAKSLSOSEALYIWDEPLNYLDFVNHOQLEALILSYKPMNLVIB 480		421	TNRIEQMSMGQRKKEVAKSLSOSEALYIWDEPLNYLDFVNHOQLEALILSYKPMNLVIB 480			
Db	421	TNRIEQMSMGQRKKEVAKSLSOSEALYIWDEPLNYLDFVNHOQLEALILSYKPMNLVIB 480		421	TNRIEQMSMGQRKKEVAKSLSOSEALYIWDEPLNYLDFVNHOQLEALILSYKPMNLVIB 480			
Qy	481	HDAHFMKKITDKKIVLKS 498		481	HDAHFMKKITDKKIVLKS 498			
Db	481	HDAHFMKKITDKKIVLKS 498		481	HDAHFMKKITDKKIVLKS 498			

Search completed: July 28, 2003, 15:39:59
 Job time : 99 secs

Step 1D No : 2

RESULT 2
 ABB47285
 ID ABB47285 standard, Protein, 498 AA.

XX
 AC ABB47285;
 XX
 DT 31-JAN-2002 (first entry)
 XX
 DE Enterococcus faecalis Polypeptide Abc23.
 XX
 KW MDR; efflux pump; multidrug resistance; antibacterial; drug target.
 XX
 OS Enterococcus faecalis.
 PN WO200179257-A2.
 XX
 PD 25-OCT-2001.
 XX
 12-APR-2001; 2001WO-US12230.
 XX
 14-APR-2000; 2000US-197349P.

XX
 PA (PHYT-) PHYTERA INC.

XX
 PA Davis DV, Rogers BL, White AC;

XX
 DR WPI; 2001-6255267/72.

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 DR N-REDBB, ABA82960.

XX
 PR Determining whether a candidate nucleotide or polypeptide encodes/functions as a multidrug resistance (MDR) efflux pump comprising, searching a database for sequences high identity known MDR efflux pumps and then

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 PR deleting/mutating an identified region of the DNA in a bacterial cell and

XX
 PR determining whether the bacterial cell exhibits increased or decreased sensitivity to an antibacterial agent. The identified pumps are useful for

XX
 PR Claim 10: Fig 26; 139pp; English.

XX
 CC The invention relates to determining whether a candidate nucleotide (ABA47263-ABA47296) encodes/functions as a multidrug resistance (MDR) efflux pump comprising, searching a database for sequences high identity known MDR efflux pumps and then

CC deleting/mutating an identified region of the DNA in a bacterial cell and

CC determining whether the bacterial cell exhibits increased or decreased sensitivity to an antibacterial agent. The identified pumps are useful for